

US-Norway Military Telemedicine Collaboration—Evacuation Support System

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Introduction: There are many concerns to attend to in a military battlefield situation. A wounded soldier will need immediate treatment and transport to the nearest medical facility. The receiving medical facility should have information about the patient's medical history. The Command and Control (C2) units need to be aware of the overall situation. The soldier's commanding officer wants to know his medical status. Accurate medical records are essential for epidemiological research—many actors need information about the patient.

The US-Norway Telemedicine collaboration project has developed and tested a prototype solution called Evacuation Support System (ESS) that investigated:

1. Patient tracking using electronic "dog-tags";
2. Digital mobile documentation, providing "early warning medical information" to the medical treatment facility and "medical tracking" information to C2 units; and
3. Exporting standardized patient documentation to SANDOK EHR to ensure complete patient records

Method: The system was designed by SINTEF ICT in close cooperation with both Norwegian and US military medical personnel, and implemented by Cardiac AS. It was tested at Setermoen during exercise Interaction in December 2003. The system was evaluated using the Technology Acceptance Model, which includes observation logs, structured interviews, and questionnaires.

Results: The results from the evaluation showed that portable computing devices, electronic "dog-tags", and wireless communication can support and improve the work in a military evacuation scenario. The system must be: (1) robust and easy to use; (2) compatible with medical drills; (3) integrated with biosensors; and (4) integrated with existing communication infrastructures.

Conclusion: A system with electronic computing and communication devices will improve patient management in field environments and provide important information for C2 units if it is carefully designed.

References

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Keywords: collaboration; command and control; communications; documentation; dog tags; evacuation; information; medical records; military; telemedicine; support

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Terror—Psychological Aspects

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The target group for terrorists is not the victims, those who are injured or killed, but the population itself. The modern media play a key role by conveying dramatic impressions to the public. How

much terror would there be without modern mass media?

The success criteria for anti-terror accomplishments not only should be the capacity to prevent terrorist attacks, but, rather, a decisive criterion should be that the population develops attitudes and coping strategies that make it psychologically resilient to effects of terrorism. There is no guarantee that any nation will succeed 100% in prevention of all terrorist attacks.

Results from Norwegian studies on different forms of terror will be presented. On the one hand, the Nacht und Nebel (NN) or Night and Fog Terror, such as against Televåg, resistance fighters and their families, consisted of methods to create maximum uncertainty about the fate of the victim. On the other hand, the effects of state-terrorism against the crews of Norwegian ships who were exposed in the Arab Gulf (1980–1988) were that the media conveyed impacts that caused significant stress reactions in the families at home in Norway. The findings show that both the NN-created uncertainty and the dramatic frightening events conveyed by the mass media, have an effect on families.

The resilience in a population appears to be dependent upon four conditions: (1) capacity for a realistic, statistical evaluation of the risk of a single person to become a victim of an act of terrorism; (2) a full understanding of what terror and terrorism is, its methods and goals; (3) society's capacity to prevent/handle acts of terrorism; and (4) the meaningfulness and acceptance of the risk in facing terror and terror threats.

Keywords: acceptance; attitudes; coping strategies; media; resilience; risk; terror; terrorists; uncertainty; victims

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A Global Infection—SARS: What Actually Happened in China?

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In November 2002, an outbreak of atypical pneumonia with unknown etiology started in South China, but took several months before being reported to the WHO and appropriate action was taken. The outbreak was unusual in having a very high attack rate among healthcare workers. A doctor from Guangdong Province, who stayed at a hotel in Hong Kong, was the source of an international spread of SARS. The global epidemic eventually affected more than 8,098 patients and caused 774 deaths in 26 countries. After the WHO's global alert on 12 March 2003, concerted efforts by the global scientific community led to the discovery of a new pathogen, the SARS coronavirus, within weeks. Diagnostic tools also soon became available. Traditional control measures including travel restrictions, increased surveillance, rapid identification, and isolation of cases were effective in containing the epidemic, and on 05 July 2003, the WHO declared that all chains of transmission had been broken. An animal reservoir of the virus is likely, and a crossing of the species barrier likely prompted the epidemic. The WHO warned of the danger of resurgence early in the post-outbreak period and four sporadic cases were identified in Guangdong late last year. Since then, laboratory workers have been infected in Taiwan, Singapore, and Beijing. Nine cases of SARS were reported (as of 07 May 2004) as a consequence of the Beijing laboratory outbreak that started in April, this year. Greater attention must be paid to biosafe-